

Europäisches Patentamt

European Patent Office

Office européen des brevets



EP 1 078 800 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3: 11.04.2001 Bulletin 2001/15

(51) Int. Ci.7: **B60J 10/08**, B60J 10/00

(11)

(43) Date of publication A2: 28.02.2001 Bulletin 2001/09

(21) Application number: 00305282.6

(22) Date of filing: 22.06.2000

(84) Designated Contracting States:

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
Designated Extension States:

AL LT LV MK RO SI

(30) Priority: 24.08.1999 JP 23712199 24.08.1999 JP 23712299

(71) Applicant:
Nishikawa Rubber Co., Ltd.
Hiroshima-shi, Hiroshima-ken 733-8510 (JP)

(72) Inventor:

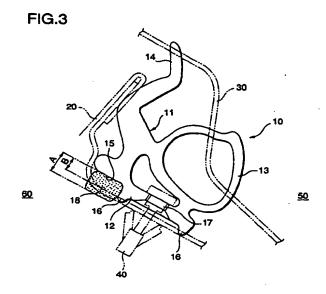
Tsuchida, Hideshi, c/o Nishikawa Rubber Co., Ltd. Hiroshima-shi, Hiroshima 733-8510 (JP)

(74) Representative:
Rackham, Stephen Neil
GILL JENNINGS & EVERY,

Broadgate House, 7 Eldon Street London EC2M 7LH (GB)

(54) Retainerless weather strip

(57)A retainerless weather strip (10) to be fixed to a door panel (20) of an automobile by a clip (40), which comprises: a base bottom portion (12) to be attached to the door panel; a hollow seal portion (13) to seal between the door panel (20) and a body panel (30); and a seal lip portion (14), wherein the base bottom portion has a cutout-shaped step portion (15) formed at a lower end portion on the automobile exterior side of the base bottom portion (12), and the weather strip (10) further comprises a thick waterproof sponge member (18) provided on the cutout-shaped step portion (15). The thick waterproof sponge member (18) has a thickness sufficiently larger than the depth of the cutout-shaped step portion (15), and has an elasticity such that a portion in which the clip (40) is located and portions in which the slip (40) is not located can be equally elastically contracted when the base bottom portion (12) is fixed to the door panel by the clip (40) so that watertightness is kept between the thick waterproof sponge member (18) and the door panel (20).



EP 1 078 800 A3



EUROPEAN SEARCH REPORT

Application Number EP 00 30 5282

	DOCUMENTS CONSID	ERED TO BE RELEVANT					
Category	Citation of document with in of relevant pass	ndication, where appropriate, ages		evant daim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)		
Α .	US 5 736 215 A (HIL 7 April 1998 (1998- * figures 1-6 *		1,5	, 6	B60J10/08 B60J10/00		
A	US 4 819 381 A (KIT 11 April 1989 (1989 * figures 1-4 *	AURA KAZUHIKO ET AL) -04-11)	1,5	,6			
A	EP 0 653 332 A (TOY 17 May 1995 (1995-0 * figures 2-5 *		1				
A	US 5 649 405 A (MOR 22 July 1997 (1997- * figures 5-9 *	IHARA YASUHIRO ET AL 07-22)) 1				
A	US 5 918 421 A (NOZ 6 July 1999 (1999-0 * figures 1,2 *		1				
1			ļ		TECHNICAL FIELDS SEARCHED (Int.CI.7)		
					B60J		
					6000		
	•						
					•		
			ļ				
	:				·		
		•	l		,		
			l				
			ŀ				
		_					
	The present search report has	been drawn up for all claims					
	Place of search	Date of completion of the search	· · · · · · · · · · · · · · · · · · ·		Examiner		
	THE HAGUE	20 February 20	01	Kus	ardy, R		
C	ATEGORY OF CITED DOCUMENTS		nciple under	ying the	invention ished on, or		
Y:par	ticularly relevant if taken alone ticularly relevant if combined with anot ument of the same category	after the filing her D: document cl	E : earlier patent document, but published on, or after the filling date D : document cited in the application L : document cited for other reasons				
A : tecl	hnological background n-written disclosure emediate document	***************************************			y, corresponding		

EP 1 078 800 A3

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 00 30 5282

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

20-02-2001

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
US 5736215	A	07-04-1998	DE	4314192 A	03-11-1994
			CA	2157277 A	10-11-1994
			WO	9425246 A	10-11-1994
			EP	0696956 A	21-02-1996
			GB	2287429 A,B	20-09-199
US 4819381	A	11-04-1989	JP	5036247 B	28-05-1993
			JP	62187615 A	17-08-1987
			JP	62253519 A	05-11-1983
			GB	2186619 A,B	19-08-198
EP 0653332	A	17-05-1995	JP	7117582 A	09-05-199!
			JP	7125579 A	16-05-199
			JP	7137582 A	30-05-199
US 5649405	A	22-07-1997	JP	8216687 A	27-08-199
US 5918421	Α	06-07-1999	JP	9123760 A	13-05-199

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

FORM FU459